FRANKLIN TEMPLETON INVESTMENT FUNDS

Climate Statements

31st March 2025

Prepared by FundRock NZ Limited in

Compliance with the Aotearoa New Zealand Climate Standards

CONTENTS

1. INTRODUCTION

FundRock NZ Limited ("**FundRock**") has prepared these climate statements (the "**Statements**") for Franklin Templeton Investment Funds (the "**Scheme**") with input from Franklin Templeton Australia Limited ("**Franklin Templeton**"), who FundRock has appointed as investment manager of the fund within the Scheme and in compliance with the requirements of the Aotearoa New Zealand Climate Standards (the "**Standards**"). These Statements cover the reporting period between 1st April 2024 and 31st March 2025 (inclusive) and the following funds (collectively, the "**Funds**"):

- Brandywine Global Opportunistic Fixed Income Fund (the "**Fixed Income Fund**"); and
- Brandywine Global Opportunistic Equity Fund (the "**Equity Fund**").

FundRock is a fund hosting business; we issue and manage funds on behalf of investment managers who want to provide Aotearoa New Zealand investors with access to their investment solutions via Portfolio Investment Entities (PIE funds) under our MIS ("managed investment scheme") manager licence. FundRock's goal is to provide Aotearoa New Zealand investors with access to leading global and boutique domestic investment managers. Our funds cover all major asset classes and a broad variety of strategies.

While FundRock retains sole authority over all aspects of fund management, all decisions about investments are made by Franklin Templeton, in accordance with the Investment Management Agreement. These Statements reflect this arrangement: certain sections are focused on how FundRock manages Climate-Related Risks and Opportunities ("**CRR&O**"); certain others, on how Frankin Templeton does it; and still others – in fact, most –present both. It is important when reading these Statements to consider these arrangements, and the respective responsibilities, to understand the Funds' strategy in relation to CRR&O.

FundRock is part of the Apex Group, which has published a Sustainability Report where more details on the group's approach to sustainability can be found. At the level of schemes and funds (that at which these Statements were prepared), FundRock's approach to climate-change varies and is strongly influenced by the funds' investment manager.

The investment manager for the Scheme is Franklin Templeton, as detailed in the Scheme's governing documents and the Product Disclosure Statement for the Funds. Franklin Resources, Inc. ("**Franklin Resources**") includes a number of specialised investment managers ("**SIMs**"), each with their own autonomous investment process. Brandywine Global Investment Management, LLC ("**Brandywine Global**"), one of Franklin Templeton's SIMs, provides investment management services for the Fund. Brandywine Global is a wholly owned subsidiary of Franklin Resources.

Franklin Templeton aims to deliver superior risk-adjusted returns and create long-term value for its clients. The investment manager believes it is imperative to provide a careful assessment of risks that may impede these goals, including those arising from material risks to human, natural, and financial capital. Climate-related risk – including resource scarcity, environmental factors and resulting societal impacts – will shape the world's future prosperity. How governments and corporations respond will impact the global economy. Franklin Templeton acknowledges its role in this transformation, both as a corporation and through helping its clients navigate the resultant risks and opportunities for their portfolios.

Franklin Templeton has publicly supported the Task Force on Climate-related Financial Disclosures ("**TCFD**") since 2021, believing that the economic consequences of climate change are best understood with a robust reporting framework that promotes comparable disclosure of material risks for the ultimate benefit of investors. Franklin Templeton's latest corporate TCFD report reflects the firm's understanding and management of its risks and opportunities related to climate change.

1.1. Adoption Provisions

In preparing these Statements, FundRock relied on the following adoption provisions found in the Aotearoa New Zealand Climate Standard 2 (the "**CS2**"):

- **(A)** Adoption provision 2 (Anticipated financial impacts);
- **(B)** Adoption provision 3 (Transition planning);
- **(C)** Adoption Provision 4 (Scope 3 GHG emissions);
- **(D)** Adoption Provision 5 (Comparatives for Scope 3 GHG emissions);
- **(E)** Adoption provision 6 (Comparatives for metrics);
- **(F)** Adoption provision 7 (Analysis of trends); and
- **(G)** Adoption Provision 8 (Scope 3 GHG emissions assurance).

1.2. Cautionary Note and Limitations

This report is a summary of FundRock's assessment of future CRR&O and its resulting strategy. It contains FundRock's current assessment of the future CRR&O which could affect its business and customers, as well as its current planning to address these risks. This process necessarily involves estimates, projections, and assumptions about the future, which are inherently uncertain and are not forecasts of future performance.

This report contains statements that are, or may be deemed to be, forward looking statements, including climate-related goals, targets, pathways, ambitions, and related risks and opportunities, as well as FundRock's current planning to address related risks. By their very nature, forward-looking statements require us to make assumptions and are subject to inherent risks and uncertainties, many of which are beyond our control and give rise to the possibility that our predictions, forecasts, projections, expectations or conclusions will not prove to be accurate, that our assumptions may not be correct, and that our objectives, vision, commitments, goals, targets, and strategies to mitigate and adapt to CRR&O will not be achieved. FundRock has set out the basis and limitations of its analysis in these Statements and reserves the right to revisit its assumptions and assessments as it develops its understanding of CRR&O and its response to climate change. This section should be read together with the limitations identified elsewhere in these Statements. Many of the assumptions, standards, metrics, and measurements used in preparing these Statements continue to evolve and are based on assumptions believed to be reasonable at the time of preparation, but should not be considered guarantees.

In light of the above, while FundRock has taken due care in preparing these Statements, including its scenarios and assumptions, FundRock makes no representation as to their accuracy, completeness, or reliability, in particular in relation to FundRock's assumptions regarding future events. FundRock expressly disclaims responsibility for, and makes no representation, and gives no warranty, assurance, or guarantee, as to the accuracy, completeness, or reliability of any contents of these Statements. To the greatest extent possible under New Zealand law, FundRock also expressly disclaims all liability for any loss (direct, indirect, consequential, or otherwise) or damage arising from the use of these Statements. We recommend you seek independent advice before acting or relying on any information in this report. FundRock reserves the right to revise statements made and its strategy or business activities described in these Statements without notice.

Franklin Templeton and Brandywine Global have provided information about how they manage Climate-Related Risks and have consented to being named in these Statements in the form and context in which they are named. Franklin Templeton and Brandywine Global have not issued these Statements or caused them to be issued. Franklin Templeton and Brandywine Global make no recommendation or warranty as to the completeness or appropriateness of any information contained in these Statements and do not endorse, recommend, or guarantee the performance of the Funds. Franklin Templeton and Brandywine Global expressly disclaim responsibility for, and make no representation,

and give no warranty, assurance, or guarantee, as to the accuracy, completeness, or reliability of any contents of these Statements. To the greatest extent possible under law, Franklin Templeton and Brandywine Global also expressly disclaim all liability for any loss (direct, indirect, consequential, or otherwise) or damage arising from the use of these Statements.

1.3. Directors' Approval and Statement of Compliance

Signed on 28 July 2025 by the Directors identified below on behalf of FundRock, approving compliance with the Standards:

Hugh Stevens

Hugh Stevens

Jeremy Valentine

2. GOVERNANCE

2.1. Governance Body

FundRock's Board of Directors (the "**Board**") is the governance body for the Scheme (as well as all the schemes and funds managed by FundRock). It is accountable for the long-term stewardship and resilience vis-à-vis potential impacts of climate change.

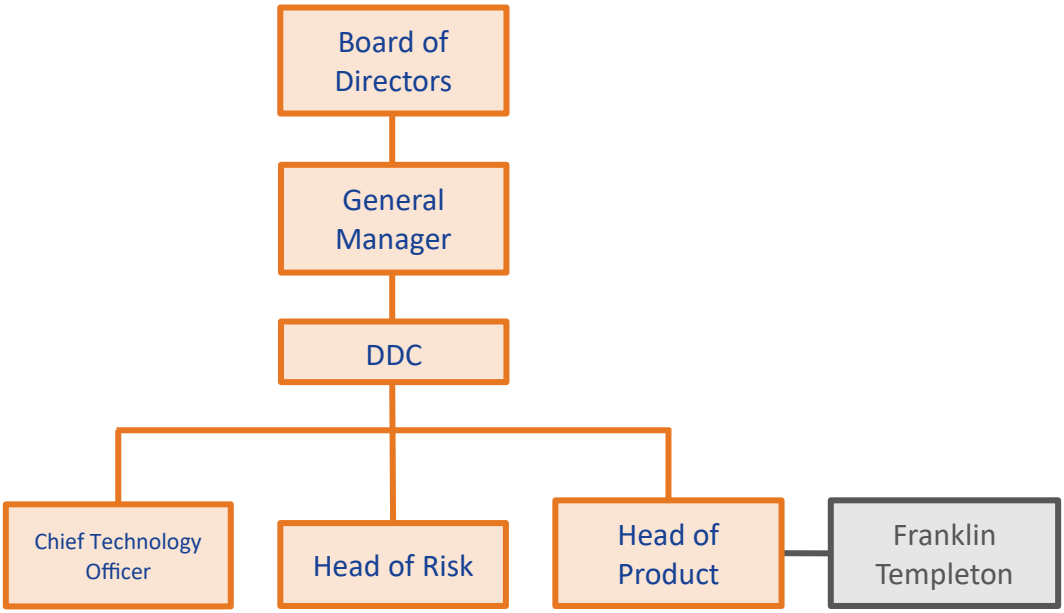
The Board takes into account compliance and regulatory risks arising from possible changes to the regulatory framework of Aotearoa New Zealand's investment industry when developing and overseeing the implementation of FundRock's strategy. CRR&O that are specific to Scheme or Funds (such as those associated with the assets held by a fund) are addressed at the management level.

2.1.1. CRR&O Governance Structure

The Board engages quarterly with FundRock's General Manager, who reports on the most material entity-level CRR&O. These reports are reviewed by the Due Diligence Committee (the "**DDC**") prior to being made available to the General Manager. The DDC also reviews key deliverables of the Climate-Related Disclosures ("**CRD**") regime (including these Statements) and either approves them or attests their orderliness for submission to the Board.

For CRD purposes, the interactions with Franklin Templeton are managed by the Product team (led by the Head of Product). As the DDC, the Product team is also responsible for this role in connection with other aspects of scheme and offer management. As part of its role, the Product team engages with Franklin Templeton regarding their climate-related practices and objectives.

The chart below illustrates the structure described above:



- **Board**: performs the role of governance body, as described in these Statements.
- **General Manager**: ensures project is adequately resourced, defines success, and acts as liaison between the Board and FundRock management.
- **DDC**: manages CRD-related activities, as described in these Statements.
- **Head of Product**: leads the execution of CRD-related activities.

- **Head of Risk**: leads the management of CRD-related compliance risks and provision of risk management expertise.
- **Chief Technology Officer**: leads the provision of IT support and data expertise.
- **Franklin Templeton**: manages CRR&O for the Funds in accordance with its investment objective as stated in the Product Disclosure Statement.

Franklin Templeton views climate-related impacts through two lenses: as a corporate entity and as an asset manager. As an asset manager, Franklin Templeton recognises sustainability as one of the waves transforming global capital markets. As such, Franklin Templeton has developed a governance framework and strategy to ensure it acts with prudence, loyalty and care when investing its clients' assets. More information on Franklin Templeton's sustainable investment governance framework can be found in Schedule A below.

2.1.2. Skills & Competencies

The Board continues to develop the skills and competencies of its members in respect to CRD and CRR&O. There were two changes to the Board's composition in August 2024, including the investiture of a director with extensive experience in ESG and assurance. The Board remains committed to receiving training on CRD and CRR&O at its quarterly meetings (see Section 2.1 above).

The monitoring of investment risks, including climate-related risks, is performed by Brandywine Global's investment teams using a variety of proprietary and non-proprietary research and data to evaluate investment ideas and monitor investments. The teams use thought leadership available through its industry memberships, including but not limited to the United Nations-supported Principles of Responsible Investment. Investment and product specialist professionals also attend industry and sell-side conferences and webinars to expand their knowledge and application of Environmental, Social and Governance ("**ESG**") considerations into their investment process. In addition to the above, Team Heads regularly discuss ESG issues with their team members to develop additional competency. Each team's designated responsible investment lead(s) is responsible for working with both their team members and the Brandywine Global's Head of Responsible Investment to ensure training and information is disseminated widely.

2.1.3. Metrics & Targets

The General Manager will report to the Board quarterly on the Funds' performance against their metrics (to the extent that the Funds are publishing metrics and data is available) and targets (if any).

The Board has not set CRD- or CRR&O-related targets, key performance indicators, or remuneration incentives for any of FundRock's staff or the Scheme. Nonetheless, the investment manager may choose to set such targets or indicators for the Scheme or Funds; for more about this, see Section 5 below.

2.2. Management

The DDC reviews key deliverables of the CRD regime as they are prepared, and the most material CRR&O (at the entity level) quarterly (see p 7 above). It also engages with the Product team regarding the work on CRD in the relevant reporting period and associated risks and opportunities. The Product team, in turn, is in contact with Franklin Templeton throughout the reporting period and receives updates on their CRD-related processes and their status.

At Franklin Templeton, the Executive Board of Brandywine Global has established an Investment Committee to oversee investment-related matters. The Investment Committee's responsibilities include, among other things, oversight of Brandywine Global's ESG policies, procedures, and processes, which also include addressing climate risk, mitigation, and resilience. To assist in this responsibility, the Investment Committee has further appointed the Responsible Investment Council ("**RIC**"), that meets no less frequently than quarterly and provides a governance structure to review and vet proposed responsible investment-related strategies, products, commitments, and issues. In addition,

the RIC is responsible for reviewing the annual responsible investment reporting frameworks, stewardship reporting and other membership commitments. The RIC is co-chaired by members of the Global Fixed Income and Legal teams, with representation from key areas of Brandywine Global including Regulatory Compliance, Risk Management, as well as members of the Executive Board.

All binding elements of ESG commitments are reviewed and monitored as part of Brandywine Global's Portfolio Compliance process. In addition, as part of Brandywine Global's ongoing Compliance Monitoring Program, its Regulatory Compliance group tests select aspects of its ESG process to seek to ensure, among other things:

(A) that ESG statements made across public disclosure documents and other client/investor facing documents are fair and balanced and consistent with investment team process and policy; and

(B) statements in regards to Brandywine Global's public commitments to global ESG frameworks, principles, or standards do not contain any material misrepresentations or are otherwise misleading.

Further, Brandywine Global leverages the functionally independent internal audit and compliance monitoring function of its parent company Franklin Templeton.

3. STRATEGY

3.1. Current Impacts

At the entity level, the costs of compliance with CRD regulations continue to be the most significant impact of CRR&O. FundRock and Franklin Templeton have dedicated material resources to ensure compliance with it; while these costs may not be passed on to the investors directly, mounting regulation may lead to fee increases.

Franklin Templeton has considered the current climate-related impacts with respect to these Funds and not observed any measurable impact.

3.1.1. Current Financial Impacts

FundRock is unable to provide a meaningful, reliable, and quantifiable measure of the financial impacts that climate change had on the Scheme or Funds during the current reporting period for the following reasons.

The price of a financial asset reflects investors' expectations of its returns for an undetermined future period. These expectations are based on all material information regarding the asset that is publicly available, and many determinants may drive price action, rather than a single factor. A price movement can sometimes be linked to a specific event, including natural disasters and accidents that cause environmental and social damage. However, the extent of the damage to the public and private sectors and civil society, as well as the estimated timeframe and cost of recovery, can deviate significantly from initial projections. The differences between estimated versus actual costs makes forecasting difficult.

These challenges are *in addition* to quantifying the effects of climate change. For example, it took more than a year after cyclone Gabrielle hit Gisborne in early 2023 for a team of scientists to conclude that it was made 10% worse by climate change[1]; FundRock is not equipped to determine (with reasonable certainty and within the timeframe available to complete these Statements) which, of all events that affected the assets it holds in a certain year, can be linked to climate change – let alone to quantify their effects.

These reasons also mean that it is difficult to provide a qualitative assessment of the current financial impacts of climate change.

3.2. Scenario Analysis

FundRock has used the sector scenario analysis produced on behalf of the Financial Services Council to conduct the scenario analysis (the *Climate Scenario Narratives for the Financial Services Sector* and the *Climate Risk Database*, hereinafter jointly called the "**Sector Scenario Analysis**"). The reasons for making this choice were:

- **(A)** adoption of the Sector Scenario Analysis across the industry makes it easier for investors to compare the climate-related strategies adopted by fund managers;
- **(B)** the Sector Scenario Analysis benefits from the knowledge of experts; and
- **(C)** adopting the Sector Scenario Analysis firmly grounds FundRock in a framework that is compliant with applicable regulations.

The Sector Scenario Analysis was not adopted without judgement, however. In an iterative process, FundRock **(1)** identified the driving forces underlying development of the three scenarios, **(2)** modelled their relationship[2], and

[1] See Stone, Dáithí A. *et alii*, *Cyclone Gabrielle as a Design Storm for Northeastern Aotearoa New Zealand Under Anthropogenic Warming*, available at https://doi.org/10.1029/2024EF004772 (consulted on 11 Sep 2024).

[2] See footnote No 8 for the meaning of "model" in the context of scenario analysis.

(3) identified those with deeper or broader impacts on the scenarios (i.e., the key driving forces). Further along the process, FundRock analysed the risks identified in the Climate Risk Database, integrating the information across the Sector Scenario Analysis and systematising the risk classification for use with diversified portfolios. Finally, the portfolio of the Funds was used to identify the most critical risks and how they may impact the Funds within the timeframe of the scenario analysis.

3.2.1. Methods & Assumptions

FundRock has analysed the three scenarios from the Sector Scenario Analysis: Orderly (1.5°C), Too Little, Too Late (2°C), and Hothouse (3°C). These scenarios are informed (respectively) by the Intergovernmental Panel on Climate Change ("**IPCC**") SSP 1-1.9, SSP 2-4.5, and SSP 5-8.5 scenarios[3], and are relevant and appropriate for the following reasons:

- **(A)** They comply with the regulatory requirements, which estipulate that climate reporting entities must analyse a 1.5°C, a 3°C scenario, and a third scenario of their choice.
- **(B)** The Orderly and Hothouse scenarios:
  - **(i)** represent extremes, and therefore allow FundRock to analyse how the Scheme and Funds would fare under the most challenging circumstances; and
  - **(ii)** are widely used by businesses, both in the financial services and other industries – their widespread adoption will make it easier for investors to compare offers and products.
- **(C)** The *Too Little, Too Late* and the *Disorderly* scenarios were considered as the third option, and the former was selected as per the Sector Scenario Analysis Report[4] this was deemed the most likely path for Aotearoa New Zealand. It is also more challenging than the *Disorderly* scenario, which assumes lower physical and transition risks and a lower long-term temperature increase[5].

The description of the scenarios and certain further details on methodology can be found in Schedule B below.

3.2.2. Scenario Analysis Process

The scenario analysis followed the six-step process detailed in the guidance published by the External Reporting Board ("**XRB**"), particularly the *Staff Guidance Entity Scenario Development*[6]. An overview of the process is provided below:

- **(A)** *Engage with Stakeholders*: see Subsections 3.2.2.1 and 3.2.2.2 below for details.
- **(B)** *Define the Problem*: the focal question was adopted from recommendations by the Task Force on Climate-Related Financial Disclosures ("**TCFD**")[7] and the Funds were in scope. For information on time horizons, see Section B.i below).
- **(C)** *Identify driving forces and critical uncertainties*: the Sector Scenario Analysis was reviewed and analysed to produce a conceptual model[8].
- **(D)** *Select temperature outcomes and pathways*: temperature outcomes and pathways were adopted from the Sector Scenario Analysis (see Section 3.2 above for more details).
- **(E)** *Draft narratives and quantify*: narratives were adapted from the Sector Scenario Analysis, taking into consideration the distinctions of the Scheme and Funds. No quantification was attempted.
- **(F)** *Assess strategic resilience*: completed by FundRock.

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3 *Climate Scenario Narratives for the Financial Services Sector*, p 12.

4 See Sector Scenario Analysis Report, p 12.

5 See *Network for Greening the Financial System, NGFS Scenarios for central banks and supervisors*, November 2023, pp 11 and 20.

6 Which is itself an adaptation of *Task Force on Climate-Related Financial Disclosures*, *Guidance on Scenario Analysis for Non-Financial Companies*, October 2020 – also consulted.

7 Task Force on Climate-related Financial Disclosures, *Guidance on Scenario Analysis for Non-Financial Companies*, 2020 p 72.

8 A conceptual model is a "simple representation of a system focused on the relationship expected to be seen between variables" (XRB, *Staff Guidance Entity Scenario Development*, 2023, pp 11 and 27).

3.2.2.1. Integration & Governance

The Board set the governance for scenario analysis, ensuring appropriate processes were in place; and FundRock's management has reviewed and approved the scenario analysis framework (which was based on the Sector Scenario Analysis, as described above) and its results (as reflected in these Statements).

Scenario analysis was conducted by FundRock as a standalone process, but its results (particularly the risks and impacts which identification and assessment it enabled) were shared with investment managers for their consideration and (when material for FundRock as an entity) integrated into FundRock's risk management processes.

The results of the scenario analysis provided by FundRock have been reviewed by Brandywine Global. No further action has been taken as at the date of this report.

3.2.2.2. External Stakeholders

FundRock has reviewed the scenario analysis and its application to the Scheme and Funds and shared the results with Brandywine Global. No further action has been taken by Brandywine Global as at the date of this report.

3.3. Climate-Related Risks and Opportunities (CRR&O)

The Sector Scenario Analysis included a *Climate Risk Database*, on which FundRock relied to identify and assess the risks for the Scheme and Funds. As indicated in Section 3.2 above, the risks found in the Sector Scenario Analysis were systematized by FundRock to allow for their application across the variety of schemes and funds we manage.

The table Schedule A below lists the climate-related risks identified by FundRock. Diversified investment funds will be exposed to most, if not all, climate-related risks. For example, it is likely that at least one of their investees will be exposed to the impacts associated with rising sea levels or stranded assets. At the direction of FundRock, Brandywine Global has chosen to highlight the risks that were assessed to be material to the Scheme and Funds. This assessment was based on the Funds' portfolios and the Sector Scenario Analysis.

The risk of policy and regulatory impacts is material for all schemes and funds managed by FundRock, including those in these Statements' scope:

Name	Type	Term	Sector/Geography	Description
Policy & Regulatory Impacts	Transition	Short/Medium	Aotearoa New Zealand	Increasingly stringent climate change regulations (e.g. disclosure, emissions reduction, green buildings requirements, etc.) creating additional processes and costs.
Policy & Fiscal and Economic Impact – Funding from ESG-Labelled Debt	Transition	Short/Medium/Long	Australia New Zealand Latin America United Kingdom	Central government ESG financing frameworks and corresponding labelled debt issuance to fund decarbonization within specific or all economy-wide sectors, produce renewable energy, and/or promote agricultural resilience to climate risk. Countries in scope include: New Zealand, Australia, Colombia, Mexico, Brazil, and United Kingdom.
Policy & Legislation – Fiscal Package for Energy Transition	Transition	Short/Medium	United States	Federal fiscal package and legislation to promote and fund the transition across

Name	Type	Term	Sector/Geography	Description
				energy production, electricity transmission, manufacturing, and households.
Legislation & Revenue – Mandatory Carbon Markets	Transition	Short/Medium	New Zealand Canada European Union	Review carbon credit auctions and trading across mandatory trading schemes to understand value of security, domestic demand and use of credit, and potential revenue collection for central/state government.

The publication of mandatory climate statements is an early manifestation of the aforementioned policy & regulatory risk.

In Brandywine Global's view, climate risks and opportunities are long term themes that may have a significant impact on commodity prices, commodity production, food supply, overall baskets of inflation, economic and trade activity, migration patterns, housing markets and household wealth, consumption and investment patterns, technology and innovation, and debt levels. Since these are all broad, structural themes, they have been harder to assess in terms of the effect on asset prices and borrower costs. Nevertheless, Brandywine Global conducts internal research on the long-term risks and opportunities associated with climate on macro, sector, and company levels.

Brandywine Global designed its approach to ESG integration to span across the majority of its investment processes and asset classes and account for its shared value orientation. Brandywine Global believes that it is advantageous for analysts to serve a dual role in evaluating ESG and financial/economic factors together. By evaluating all sets of information together, its analysts and portfolio managers can understand the financial and economic materiality of ESG risks and their positions.

Alongside traditional financial and economic analyses, Brandywine Global incorporates an evaluation of the potential impacts of ESG factors on an issuer, to determine whether, in its view, the issuer's ESG practices present a financial opportunity or risk for an investment. Consideration of ESG factors and risks is only one input in the assessment of eligible investments and, as with any inputs considered, may not be a determinative factor in the final decision on whether to purchase (or sell) a security. Climate risk, including physical and transition risks, are considered one of several inputs to the investment team's overall ESG evaluation. In addition, where ESG factors are considered, the weight given to ESG factors may vary across types of investments, industries, regions, and issuers and ESG factors and weights considered may change over time. Climate and ESG-related analysis may also form the basis of investee entity engagement, whereby the investment team endeavours to understand how these risks are being accounted for and potentially addressed, and this information is additive to the overall research process. The team's internal research combined with its qualitative ESG scoring for equities and quantitative scoring for fixed income issuers are included as topics for engagement, particularly with issuers that may lag in terms of scoring, or operate in a high-emitting sector.

The Funds do not have a commitment to manage solely or primarily on the basis of climate risk and opportunity, though those factors are evaluated. Within fixed income markets, climate risk may impact a different area of an issuer yield curve depending on magnitude and timing. For equities, climate risk may impact the fundamentals of a business and its share price.

Some non-exhaustive examples of short-term climate related risks and opportunities include headline risk related to environmental and social non-compliance, the financial, economic, and social losses incurred from a natural disaster and subsequent recovery, and litigation liabilities for remediation.

Medium-term risks and opportunities may include, but are not limited to, revenue generation opportunities related to climate innovation and resilience—both absolute and relative to peers—reputational risk associated with lagging a

peer group or failure to meet stated commitments, the gap between funding needs, cash, access to finance, and overall outstanding debt, and cost of capital. The latter may increase depending on the credibility of the issuer's stated climate commitments and progress on those objectives.

3.3.1. Definitions of Short-, Medium-, & Long-Term

FundRock adopts the timeframes from the Sector Scenario Analysis (see Section B.i below).

3.3.2. CRR&O & Decision Making

Management of entity-level CRR&O has been integrated into FundRock's overall risk management framework. That framework involves discussing risks in risk controls meeting attended by the General Manager. If the relevant risk cannot be properly addressed at this level, they may be highlighted in the quarterly Board reports (see Section 2.1.1 above). Should the Product team identify the need for reviewing the level of resources dedicated to addressing climate risks, it would express its view to the General Manager in the relevant meeting or through the Board report. Senior management and directors would consider said needs within the context of FundRock's goals and the environment in which it operates, and make capital deployment decisions as required by their duties, taking into account the Apex Group's policies.

At FundRock, entity-level CRR&O receive the same treatment as all other risks and opportunities in all risk-related process and procedures and at all levels of the organization. As a rule, risks are prioritized based on their likelihood and expected impact.

Brandywine Global relies on fundamental qualitative research and its internal scoring methodology to identify and understand climate risks, and what may be material to a particular issuer. Sector, industry, development status, financial and economic health, reported ESG metrics, leadership, and peer groups may also help inform its understanding of material climate risks. Ultimately, Brandywine Global will determine whether any risks to the value of the issuer and its securities exist; the entity has taken steps to address those risks and avoid loss of capital; that information has been priced into market expectations; and valuations compensate for undertaking any levels of risk.

Some non-exhaustive examples of short-term climate related risks and opportunities include headline risk related to environmental and social non-compliance, the financial, economic, and social losses incurred from a natural disaster and subsequent recovery, and litigation liabilities for remediation.

Medium term risks and opportunities may include, but are not limited to, revenue generation opportunities related to climate innovation and resilience—both absolute and relative to peers—reputational risk associated with lagging a peer group or failure to meet stated commitments, the gap between funding needs, cash, access to finance, and overall outstanding debt, and cost of capital. The latter may increase depending on the credibility of the issuer's stated climate commitments and progress on those objectives.

3.4. Anticipated Impacts

From an institutional perspective, FundRock continues to see changes to the cost of compliance with climate-related policies and regulations as the main impact of CRR&O. The review of NZ CS 2 in late 2024 reduced the cost pressure for the current reporting year. Looking ahead, FundRock sees substantial uncertainty as both the Ministry for Business, Innovation, and Employment and XRB have opened or indicated their intention to open consultations on the future of the CRD regime. There is a chance that legislation and regulations emerging from these consultations will stabilize the cost of compliance with CRD requirements. Nonetheless, as it is the data on GHG Emissions will be subject to assurance from the 2025/2026 reporting period onwards. This would significantly increase compliance costs.

The Funds do not have a commitment to manage solely on the basis of climate risk and opportunity, though those factors are evaluated to make well-informed decisions. Within fixed income markets, climate risk may impact a different area of an issuer yield curve depending on magnitude and timing. Short to long term risks are outlined in Section 3.3 above.

3.5. Transition Plan Aspects of Strategy

FundRock is a fund hosting business. We provide services to domestic and international investment managers who want to operate in Aotearoa New Zealand but would prefer to outsource fund management to us, normally because they believe this to be the most cost-effective way of offering their services in the country.

Our business model is very resilient to investment risks (climate-related or otherwise) thanks to the broad variety of schemes and funds we can accommodate. As long as there is continued demand for managed investment schemes in Aotearoa New Zealand, we can evolve and adapt to political, economic, and societal changes: we can work with existing investment managers to make strategic adjustment to their products, and whenever this proves impractical, new products (more aligned with prevailing market winds) may be developed in collaboration with current or new investment managers, replacing those retired.

FundRock's knowledge of and experience in Aotearoa New Zealand's investment funds market will be invaluable in the process of identifying the adaptations required and assessing the viability of both existing and prospective products. Understanding the CRR&O specifically associated with this market must be part of this.

The Fixed Income Fund invests in international fixed interest assets, including investment grade corporate bonds, taxable municipal bonds, high yield debt[9], and non-agency mortgage-backed securities and asset-backed securities (in each case, subject to certain limitations[10]). The Equity Fund seeks global opportunities and invests in shares issued by publicly listed companies on a country's local exchanges, in a local currency, and across market capitalisation. Brandywine Global has a value-driven process, focusing on assets in countries and currencies that meet their definition of value, and advance this with a benchmark agnostic investment style.

3.5.1. Transition Plan

Given the resilience of FundRock's business model expressed above, it currently has no plans to change its strategic direction based on CRR&O or adopt any targets for itself. Our core concern will continue to be regulatory transition risks, which have already been integrated into our risk management (see Section 3.3.2 above) and governance (see Section 2.1.1 above) processes.

Going forward, FundRock expects that the level of resources dedicated to address CRR&O will increase to accommodate assurance requirements. Otherwise, resourcing and costs are likely to remain stable (in real terms). We expect the funds to pay for all costs associated with the CRD regime and CRR&O via the fees charged from investors. We have not yet increased fees to address these costs, but we may have to do this if they do not stabilize.

For both the Fixed Income Fund and the Equity Fund, the investment manager monitors underlying investments for environmental practices and standards. These factors are not the primary or sole drivers of buying, retaining or selling investments. To the extent that Brandywine Global believes that those matters may negatively affect the value or

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[9] Defined as "*non-sovereign investments with below investment grade ratings (below BBB- or the equivalent) assigned by all Nationally Recognized Statistical Rating Organizations that provide such a rating. In the case of split ratings, the highest rating will apply*" (see the Scheme's SIPO, available at the Disclose Register).

[10] More information is available in the SIPO.

performance of an underlying investment, they may be considered as risks that would require reducing or selling out of an investment.

Brandywine Global believes it is important to evaluate investment opportunities according to potential ESG factor risks and strengths as fundamental factors alongside other conventional considerations. Integrating environmental, social, and governance factors includes analysing climate related risks and opportunities. For fixed income securities, the manager reviews a combination of emissions foot printing, sector and country exposures, fundamental issuer research and analysis, and proprietary country scores for physical and transition risk to understand how climate risk could impact the fund and its holdings. For stock selection, the manager will evaluate company disclosures, sector and resource exposure, business models, supply chains, customers, third party research, and countries of domicile and operations to better assess climate risks and opportunities. Countries with high physical risk, high public debt levels, weak or developing infrastructure, and high inflation rates would be most vulnerable to the impact of climate risk, though in an orderly scenario, short-term effects of natural disasters would be most acute. Near term risks would be reflected in food and energy supply and pricing, and damage to infrastructure and the household sector. Similarly, investee companies with significant assets and supply chains exposed to physical climate risk, such as agricultural producers, energy producers and refiners, manufacturers, and utilities, would be at a higher risk.

In the short and medium term, the manager believes that existing national climate policies for most countries are expected to be maintained or improved, with no change in global emissions. However, there are risks associated in sudden changes or rollbacks in regulation and policy, which may disrupt supply chains, stoke price instability, and burden investee companies unable to adapt quickly to rising costs and uncertainty. Sudden policy pivots and deregulation may present risks at the country level as well, spanning the fiscal position, trade, and overall quality of governance and its institutions. The risks are associated with both physical disasters and the energy transition. While the impact on asset classes and prices may be difficult to project, the manager will continue to evaluate issuer and portfolio risk, return profiles, and whether the pricing of securities reflects these risks, and make decisions accordingly.

4. RISK MANAGEMENT

FundRock manages entity-level CRR&O directly. We have identified them by referencing applicable regulations, and assessed them by appraising their expected impact, the processes and controls we have in place, and the resources of which we dispose. The processes for monitoring and managing said CRR&O are summarised in Section 3.3.2 above.

4.1. Brandywine Global

At Brandywine Global, the monitoring of both traditional and ESG factors is part of the investment research process and involves a continuous/ongoing assessment of both qualitative and quantitative information. Where utilised, ESG indicators, of which climate risk and opportunities are part, are evaluated in tandem with traditional financial and economic data when analysing an investment idea, and thematic and systemic sustainability risks are discussed as a group. To understand the effect of ESG factors on valuations, the investment teams incorporate these inputs in their research and analysis, although precisely how those factors are integrated depends on each team's respective investment process.

4.1.1. Qualitative

Whether evaluating government/sovereign bonds, corporate bonds, structured credit, or stocks, Brandywine Global uses a variety of proprietary and non-proprietary research and data to evaluate investment ideas and monitor investments. This generally includes sell-side research; regulatory filings; management meetings; economic, market and financial data; financial newsletters and trade journals; non-governmental organisations, national agencies, supranational agencies, news sources, and country reported data and information. These sources help the investment team determine what climate risks and materials may be material to the issuer and its securities valuations, and what has been priced in by the market.

4.1.2. Quantitative

The investment team measures and monitors current and changing ESG factors, including climate risks and opportunities, primarily through the use of its proprietary ESG Dashboard, which utilizes quantitative data provided by vendors and public databases. The ESG Dashboard tracks environmental and social scores at an aggregate portfolio level and for holdings where data and scoring are available. The Dashboard also calculates physical and transition risk scores for countries, and provides carbon and GHG foot-printing for the fund and select benchmarks.

4.2. Prioritisation Process

FundRock prioritizes entity-level risks based on their likelihood and expected impact. Risks are classified across both axis and assigned a risk rating. Both inherent and residual ratings are considered[11].

These ratings are reassessed every other month according to the processes summarised in Section 3.3.2 above.

Each of Franklin Templeton's specialist investment managers (such as Brandywine Global) considers sustainability risks and opportunities through the prism of their proprietary investment processes, reflecting the nuances of their investment philosophy and the particular asset class in which they specialize, and always subject to their duties and fund disclosures. As active managers in today's complex markets, Franklin Templeton considers an extensive range of

[11] An *inherent* risk is that before any controls or mitigations are applied, while a *residual* risk is that left after this is done. The inherent risk of losing a house to a fire is that of simply moving into it; the residual risk is that after smoke detectors and sprinklers have been installed and fire insurance has been acquired.

investment risks, encompassing not only ESG factors, but also considerations of factors such as geopolitics, inflation, liquidity, and regulatory/technological disruptions that can impact the generation of repeatable, risk-adjusted returns. Portfolio managers and investment analysts identify risks and opportunities using one or a combination of measures, including proprietary ESG models, relevant external ratings and data, qualitative assessments and dialogue with issuers.

As described in Section 3.3 above, the weight given to ESG factors (including climate-related risks) may vary across types of investments, industries, regions, and issuers and ESG factors and weights considered may change over time. Brandywine Global does not currently have a process for prioritising climate-related risks relative to other types of risks.

4.3. Short-, Medium-, and Long-Terms

For CRR&O, FundRock uses the time horizons adopted for scenario analysis (see Section B.i below) for risk assessment.

For Brandywine Global's view on timeframes of CRR&O, see Sections 3.3, 3.3.1, and 3.3.2 above.

4.4. Parts of Value Chain Not Included

The risk assessment process considered fund management, investment management, and the Funds' investments. Distribution risks were not considered because they do not directly pertain to the Funds and FundRock does not believe their analysis would provide material information for the Funds' investors.

4.5. Assessment Frequency

FundRock assesses entity-level risks every other month, following the processes summarised in Section 3.3.2 above. Brandywine Global continually assesses the risks that are deemed to be relevant to these Funds as part of their investment process.

5. METRICS & TARGETS

FundRock has decided not to publish metrics for the Funds in these statements.

In late 2024, Adoption Provision 4 was amended to exempt climate-reporting entities from publishing Scope 3 emission in their first *and second* reporting period[12]. In the statements for its first reporting period, FundRock opted *not* to use this adoption provision; however, changes in circumstances have led to a review of this decision. While FundRock was aware that MIS managers may have been exempted from publishing GHG emissions in their first reporting period, at the time it was uncertain whether this was an acceptable interpretation of legal and regulatory requirements. It has since become clearer that all funds' emissions are considered Scope 3 from perspective of the CRD regime, allowing FundRock to reconsider this decision.

Specifically regarding GHG emissions, FundRock relies on the exemption granted by Adoption Provision 4. FundRock considered publishing metrics in other categories[13] and has come to conclude that (under current circumstances) they are not material for the Funds, for the following reasons:

(A) **Lack of Comparability**: while GHG emissions metrics have shortcoming which makes it difficult for investors to compare the values reported by different fund managers, these challenges are exponentially increased when it comes to other metrics. There is little to no consistency on which metrics are reported, and even metrics that share a name (such as climate value at risk or temperature alignment) can vary significantly with data provider.

(B) **Lesser Utility**: thanks to the higher reliability of GHG emissions, they are generally seen as the standard by which funds' climate performance is assessed. They also provide context for the interpretation of other metrics. Publishing other secondary metrics only (without the underlying GHG emissions data) would not allow investors to make informed decisions – in fact, they could be misleading, as investors may not appreciate their shortcomings.

(C) **Lesser Relevance**: the Funds make no ESG, sustainability, or "green-ness" claims. FundRock does not expect climate metrics to play a material role in investors and prospective investors' decisions to invest in or divest from the Funds. Furthermore, since the publication of the climate statements for the previous reporting period FundRock has seen no evidence that investors are interested in this data.

(D) **Cost**: there are substantial costs associated with acquiring climate metrics from data providers, which are borne by the Funds' investors. Given the above, FundRock does not believe these costs to be justified.

These decisions will be reviewed for the next reporting period.

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[12] See CS2. Note that MIS Managers are not required to disclose Scope 1 and 2 GHG emissions because S461O of the Financial Markets Conduct Act 2013 defines MIS Managers as climate reporting entities in respect of the schemes they manage, and those schemes do not have Scope 1 and 2 GHG emissions. In accordance with the Greenhouse Gas Protocol (GHG Protocol), all the emissions of the investee companies are considered Scope 3 (financed) emissions for the Fund[s].

[13] Transition risks, physical risks, climate-related opportunities, capital deployment, internal emissions price, and remuneration, as per CS1, 22.

SCHEDULE A. FRANKLIN TEMPLETON'S GOVERNANCE

Franklin Templeton's approach to the overall governance of CRR&O takes an integrated approach and consists of:

(A) **Board oversight**: The Franklin Resources' Board of Directors ("**FT Board**") is responsible for oversight of Franklin Templeton's corporate strategy and business objectives. Sustainable Investing ("**SI**") and Corporate Social Responsibility ("**CSR**") initiatives and activities are critical to achieving its strategy and objectives. The status of these initiatives and activities and the related risks are discussed regularly with the FT Board and its committees, including the Corporate Governance and Audit committees. The Corporate Governance Committee ("**CGC**") oversees Franklin Templeton's corporate responsibility and sustainability programs, including reviewing shareholder engagement. The CGC receives updates on these topics as well as on regulatory developments. The Audit Committee has oversight responsibility for the firm's enterprise-wide risk management program and outcomes. The risks to achieving the firm's SI and CSR strategy and objectives are considered, monitored, and managed both as one of the firm's key enterprise-level risks as well as a driver of other enterprise-level risks, including investment, client, talent, regulatory, financial, technology and operational risks.

(B) **Management oversight**: The Executive Committee, composed of senior leaders from across Franklin Templeton, is responsible for setting and executing its overall strategy and business objectives as well as managing the risks to or arising from the Franklin Templeton's strategy and objectives. As such, the Executive Committee regularly monitors and assesses the firm's SI and CSR initiatives and activities alongside the management of the related risks, including those that are climate related. Franklin Templeton's Sustainable Investment Governance Committee, with authority delegated by the Executive Committee, serves as the senior-level body responsible for governance and oversight for the firm's enterprise-wide sustainable investment activities and disclosures. Among its other roles, the Committee addresses any material matters that may arise including those that might impact the firm's overall reputation. The Enterprise Risk Management Committee monitors a comprehensive array of risk-related matters, including investment, client, talent, regulatory, financial, technology and operational risks. As appropriate, these risks, and their potential impact on Franklin Templeton's clients, business, and firm reputation, are reported and escalated to the Executive Committee, Board and/or committees of the Board. Among the specific risks covered are those related to SI and CSR matters.

Other key committees and teams that support the capture, assessment, and management of SI and CSR-related risks, including climate-related risks and opportunities include:

Corporate Social Responsibility Team

The global Corporate Social Responsibility Team engages with key stakeholders around Franklin Templeton's six dimensions of CSR:

- Stewardship and Sustainable Investing
- Diversity, Equity and Inclusion
- Environment
- Employee Experience
- Community Engagement
- Responsible Corporate Practices

The team leads a wide range of corporate initiatives related to environment and climate, including reporting, disclosure, operational emissions target, and employee-related reduction initiatives. Their work is supported by the Corporate Real Estate and Facilities team, which is responsible for the effective and sustainable management of Franklin Templeton's buildings, including emissions inventory and reduction initiatives, and the Enterprise Vendor Management and Procurement team, which also participates in emissions initiatives.

Stewardship and Sustainability Council

Franklin Templeton's investment teams have differentiated and autonomous sustainable investment approaches with dedicated personnel that best suit each asset class, region, and activity. To leverage the depth and diversity of

expertise across its investment teams, Franklin Templeton's Stewardship and Sustainability Council provides a forum for dialogue and sharing of best practices around sustainable investing.

Global Public Policy Council

Franklin Templeton's public policy function allows it to coordinate its approach to policy issues across the business, and engage with regulators, policy-makers, and legislators. Franklin Templeton's Global Public Policy Council, consisting of senior leaders from across the firm, meets quarterly and sets out policy priorities, including those related to sustainable investing and other investment topics such as fund labelling and regulation of digital assets.

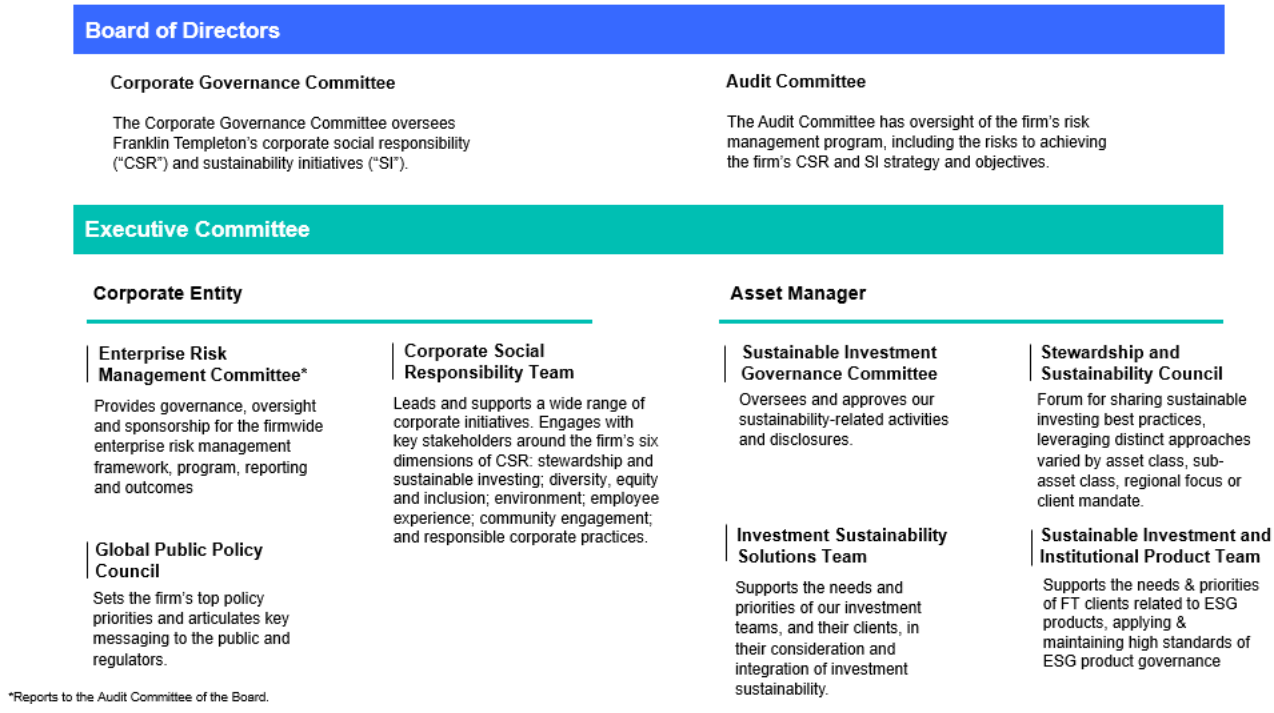
Investment Sustainability Solutions Team

Franklin Templeton's Investment Sustainability Solutions Team (**ISST**) (formerly known as the Global Sustainability Strategy Team) is a multidisciplinary group of sustainable investment professionals with expertise in sustainability data and research, stewardship and engagement, and sustainability policy and reporting. Working collaboratively, the ISST members offer sustainability expertise and solutions to Franklin Templeton's investment teams, their clients, and other key stakeholders across the firm. Leveraging deep subject matter expertise, ISST supports the needs and priorities of Franklin Templeton's investment teams in the consideration and integration of sustainability within their independent investment processes. It fosters consistency where appropriate while also empowering individual teams to maintain their differentiated approaches.

Sustainable Investment and Institutional Product Team

The Sustainable Investment and Institutional Product Team oversees the product governance applicable to sustainable investment propositions and funds, applying sustainable investment regulatory frameworks and coordinating related activities across the firm. The team is also responsible for Sustainable Product strategy, working with Franklin Templeton's specialist investment managers as well as other internal stakeholders, to adapt existing investment strategies and develop new ones to meet its clients' evolving needs in the sustainability space.

Franklin Resources, Inc.'s Sustainable Investment Governance Framework



Brandywine Global's independent Responsible Investment Council provides a governance structure to review proposed responsible investment-related strategies, products, commitments, and issues. This forum is also responsible for the annual review of responsible investment reporting frameworks, stewardship reporting and other membership commitments. The Responsible Investment Council is overseen by Brandywine Global's Investment Committee, which is the body responsible for overseeing investment management practices and market risk.

SCHEDULE B. SCENARIO ANALYSIS

B.i. Time Horizons

FundRock has adopted the time horizons set in the Sector Scenario Analysis:

Term	Time Horizon
Short	1-3 Years
Medium	5-10 Years
Long	30+ Years

This decision was made to maintain consistency with the Sector Scenario Analysis and for the reasons below;

(A) Short-term horizon is aligned with short-term investment horizons.

(B) Medium-term horizon is aligned with strategic planning and medium-term investment horizons (e.g., first home acquisition).

(C) Long-term horizon is aligned with aspirational planning (e.g., mission and purpose), long-term investment horizons (e.g., retirement) and international decarbonisation targets.

B.ii. Scenario 1: Orderly Transition

In the *Orderly* scenario there are steady and constant changes to technology, policy, and behaviour to support the transition to a low carbon global economy – including increasing carbon prices. The long-term chronic impacts from historic greenhouse gas emissions ("**GHG Emissions**") occur nonetheless, but the coordinated and timely action succeeds in preventing the worst.

Increasing carbon prices (NZD 250 and USD 400 by 2050, in Aotearoa New Zealand and globally respectively) and regulatory requirements (such as mandatory climate reporting) result in increasing costs for emissions-intensive entities. Societal changes, supported by legally mandated reporting, lead investors and lenders to withdraw financing and funding from emission-intensive sectors and entities in favour of those supportive of decarbonisation.

The development of low-emissions technology, coupled with customers' preference for low-emissions products and business, impacts the viability of entities who offer neither, especially in the energy and transport sectors. Emissions-intensive sectors and entities are driven to last ditch decarbonisation attempts to maintain the viability of their businesses as they struggle with increasing costs and disinterest from investors and lenders.

While the reduction in global GHG Emissions helps minimise the most significant physical impacts of climate change, minor impacts on sectors and entities reliant on the natural environment for their outputs or service delivery are nonetheless felt.

At a geography level, entities in economies that historically relied on emissions-intensive sectors and that have been slow to transition face economic impacts in the short-term – as do governments, who feel the economic impacts as worsening conditions reduce their revenue and expenditure is required to keep pace with transition being made by the rest of the world (e.g., electrification of transport infrastructure).

B.ii.a. Emissions Pathways

Global emissions fall at accelerating rates, averaging a 3.4% reduction per year. Net global emissions reach 25.9 $BtCO_2e$ (billion tonnes of CO_2-equivalent) by 2030 and −294.82 $MtCO_2e$ by 2050[14]. This is cause and effect of the following[15]:

- Consumer preferences shift towards low-emissions products and services. Climate activism (including through litigation) and negative media attention impact entities perceived as not taking action. Population growth slows down in the medium term, reaching 8.5 billion in 2050.
- Policies [e.g., national and international emissions reduction requirements, carbon taxes (including border adjustments), and the ban of emission-intensive activities] are adopted globally. Global carbon prices reach USD 124 per tonne in 2030 and USD 400 by 2050.
- Development of low emissions and emissions abatement technology accelerates, and technologies are rapidly adopted. Electric vehicles see widespread adoption but heavy trucks and aviation struggle to reduce emissions. 55% of global energy production (and 61% of electricity) comes from renewable sources by 2030, and 67% by 2050 (88% of electricity). Emissions from processes such as cement and steel making remain hard to abate, however.
- Farmers implement ambitious changes to become more emission-efficient, reducing biogenic methane through widespread adoption of new technology and low emissions stock variants, and conversion of land from livestock to horticulture is substantial. The waste sector also reduces methane emissions, with nearly three quarters of organic waste recovery rate by 2050 and major expansion of landfill gas capture.
- Successful limitation of GHG Emissions curbs the most significant physical impacts of climate change. Global average temperature increases by 1.4°C by 2100.
- The global economy benefits from a stable transition to a low carbon economy, with global GDP reaching USD 289 trillion by 2050 (recovering from USD 176 trillion in 2030). The Aotearoa New Zealand economy is also positively impacted. The challenges of transformational change (such as job losses and skill shortages) are managed effectively with the help of stable climate, economy, and international relations.

B.iii. Scenario 2: Too Little, Too Late

In the *Too Little, Too Late* scenario, transition to a low carbon economy is misaligned and delayed across different parts of the world. Certain geographies (designated in the *Climate Scenario Narratives for the Financial Services Sector*: the European Union, Japan, China, the United Kingdom, the United States, Canada, and Aotearoa New Zealand —the "**Early Movers**") introduce policies that bring about net-zero emissions by 2050. But in other parts of the world there is very little action, with fossil-fuelled development continuing throughout much of the remaining first half of the century. Global efforts to address climate change begin to align and exceed those by Early Movers from mid-century, but changes come too late to prevent wide ranging acute and chronic physical climate impacts.

Emissions-intensive entities located in Early Mover economies face the following pressures:

- increased costs, resulting from increased carbon emissions prices and regulatory requirements; and
- those without emissions reduction or climate-risk management plans, reduced sales and revenue, increased difficulty and cost for raising funds, decreased employee attraction and retention, and supply chain impacts, resulting from changes to stakeholder preferences.

Impacts are lesser outside these regions – except for exporters, who experience the same impacts as entities in Early Movers' regions, including through carbon taxes.

Significant physical climate risks impact sectors and geographies at varying degrees:

[14] *Climate Scenario Narratives for the Financial Services Sector*, p 31.

[15] The emissions pathways described in Subsections B.ii.a, B.iii.a, and B.iv.a below were adapted from *Climate Scenario Narratives for the Financial Services Sector*.

- Agricultural output and renewable energy generation are impacted by extreme weather events and gradual weather changes, which decrease revenue and increase costs. More fertiliser is needed to grow crops, and coal or gas is needed to generate energy, increasing emissions and physical impacts.
- Extreme weather events impair the ability of entities in the communication, utilities, information technology, and transport sectors to provide services. Customer satisfaction and revenue decline, and operational costs (repair costs and higher insurance premiums) increase.
- Significant financial impacts reduce demand for discretionary products and services.
- The health sector deals with increased demand as physical climate impacts and reduced economic stability affect individuals' health.
- At a geography level, Asia (*ex* China and Japan) and the Middle East are the most impacted, both because of the magnitude of impacts and inadequate adaptation. In Asia, this manifests as floods; in the Middle East, as water stress and drought. Food security, water availability, and housing challenges increase, leading to political unrest and migration. There are wide-ranging effects on governments and economies in these regions: the costs of disruptions and remediation are high both for public and private entities, and the latter face increased costs and reduced revenue.

B.iii.a. Emissions Pathways

Emissions fall steadily and at accelerating rates (particularly after 2030), but slower than in the *Orderly* scenario, averaging about 1% per year. Global emissions reach 35.1 $BtCO_2e$ by 2030 and 26.7 $BtCO_2e$ by 2050 – 31% less than 2020[16], but substantially more than zero. This is cause and effect of the following:

- High transition risks and medium physical risks lead to significant financial impacts and a decline in economic growth by the medium term: global GDP reaches US 274 trillion by 2050. Coupled with a global population of 9.2 billion people, standards of living decline for many across the globe.
- Behavioural changes and social pressure drive decarbonisation in Europe, the United States[17], Canada, Australia, and Aotearoa New Zealand in the short term, but the same does not occur elsewhere until the medium term. Developed nations prioritise their own transition costs; regions with limited resources experience higher negative physical impacts. Marginalised nations are further exposed to poverty and instability (political and economic). Migration and geopolitical tensions increase. Challenges in agriculture, food security, and water availability exacerbate these trends.
- The Early Movers adopt climate policies in the short term, but elsewhere there is very little action until the mid-century, when climate policies begin to align and accelerate. Global carbon prices reach USD 34 per tonne in 2030 and USD 50 in 2050.
- Development of low emissions and emissions abatement technology is delayed; even early movers make limited progress until closer to the medium term. 19% of global energy production (and 46% of electricity) comes from renewable sources by 2030, and 37% by 2050 (71% of electricity). Much of Aotearoa New Zealand's progress is driven by the rise in renewable electricity and the conversion of low-process heat boilers to biomass and electricity.
- Delay in abatement efforts results in the materialisation of various physical climate risks. Average temperature increases by 2.7°C by 2100. The increased energy contained in the atmosphere drives greater extreme weather events, especially in the latter half of the century. Impacts are distributed unevenly: temperatures increase more at higher latitudes and in the Northern hemisphere; precipitation decreases in parts of northern and central Europe, eastern Africa, and southern Australia, but increases in parts of South and East Asia; and Sub-Saharan Africa experiences both increases and decreases in precipitation. Sea levels rise by 0.20m in 2050 (0.56m by 2100), affecting coastal areas and island countries. These changes impact food security (especially in marginalised regions); cause loss of land, damage to infrastructure, and displacement of populations; and impact coastal ecosystems and trade routes.

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16 *Climate Scenario Narratives for the Financial Services Sector*, p 40.

17 Recent developments in American politics would challenge the assumption that the United States would be an early mover. Scenario analysis looks 30 years forward, though, and it is still too early to determine the long-term impact of these developments.

B.iv. Scenario 3: Hothouse

In the *Hothouse* scenario there is little change towards a low emissions future despite increasing social, economic, and environmental degradation. Emissions continue to grow higher throughout the remaining 21st century and lead to the increasing severity of extreme weather in its first half, with the addition of rising sea levels in the later half.

Entities in most sectors have increased costs (such as repair and remediation costs) and reduced productivity, and therefore reduced profitability.

In the agricultural sector, the increased frequency of extreme weather events and gradual weather changes (such as temperature and precipitation) have significant impacts on:

- stock and crop quality and yield;
- property, plant, and the equipment required to run facilities, provide access to water and food access, and prevent pest proliferation; and
- the infrastructure required for both downstream and upstream supply chain access.

There are also material impacts to the utilities sector, with a risk to potable water supplies, production of energy (particularly hydropower), and delivery of services (such as wastewater treatment). Transport infrastructure and services are affected too.

There is increased demand in the health sector, as in high-emitting sectors – increased cooling requirements because of higher mean temperatures, increased need for coal and gas energy because of impacts upon renewable energy generation, and increased need for fertilisers. With growth in high-emitting sectors limited by climate policies, entities enjoy increased profit margins.

All geographies are affected by physical climate impacts, which are exacerbated by the lack of investment in adaptation infrastructure by governments in the short- and medium-term.

Financial impacts follow. Demand for sectors such as consumer discretionary falls, and sectors providing necessities deal with impacts on margin and difficult questions as costs increase but consumers' ability to pay for goods and services is reduced. Food and water shortages and declining health and financial outcomes drive political unrest and further destabilise economies. Governments come under increasing pressure to support individuals, businesses (especially those providing essential services), and public health services while facing significant repair and remediation costs. Financial flow on effects reduce tax income, putting them under further strain.

B.iv.a. Emissions Pathways

Emissions increase slightly until 2025, and then decrease at discrete rates, averaging about 0.4% per year. Global emissions reach 38.6 BtCO2e by 2030, and 34.3 BtCO2e by 2050[18] (28% more than in the *Too Little, Too Late* scenario). This is cause and effect of the following:

- Behavioural change and social pressure for decarbonisation are limited. The focus on growth by any means necessary drives higher rates of economic inequality, increasing political instability and geopolitical tensions. There is an increase in displaced people seeking to migrate to safer living conditions while physical impacts increase logistics and construction costs.
- The European Union, the United Kingdom, the United States, Canada, and Aotearoa New Zealand are early adopters of progressive climate policy, but eventually roll them back. Japan, China, and Australia pause the development and implementation of climate policies currently under development. Global carbon prices drop to USD 6 per tonne in 2030 and remain stable until 2050. Investment in adaptation is minimal.

[18] *Climate Scenario Narratives for the Financial Services Sector*, p 49.

- There is little technological change to support emissions reduction, and fossil fuels continue to be the dominant source of primary energy: 16% of global energy production (and 42% of electricity) comes from renewable sources by 2030, and 26% by 2050 (60% of electricity).
- Unabated productivity by emission-intensive industries pushes for high economic growth, but the physical impacts of climate change eclipse that: global GDP reaches USD 175 trillion in 2030, and USD 273 trillion in 2050. With a global population of 8.6 billion people by 2050, means average living standards are lower than that in the *Orderly* scenario, but better than that in the *Too Little, Too Late* scenario (though "surplus" is not evenly distributed). Logistics are affected by events such as storms and flooding, disrupting trade.
- Fossil fuel-based fertilisers and machinery underpin agricultural growth, but in the long term the impacts of extreme weather makes it increasingly difficult to sustain said growth.
- Global average temperature rises by 4.4°C by 2100, leading to severe physical impacts. They are similar to those in the *Too Little, Too Late* scenario, but worse across the board.

B.v. Sources of Data

The scenarios described in these Statements were produced using data from the Sector Scenario Analysis. FundRock has also consulted the Network for Greening the Financial System's scenarios portal[19] to enhance its understanding of climate change in general and the Sector Scenario Analysis in particular.

[19] See https://www.ngfs.net/ngfs-scenarios-portal/. This includes the *Guide to climate scenario analysis for central banks and supervisors* mentioned above, the Phase 4 Scenario Explorer, *NGFS Scenarios for central banks and supervisors*, and *Climate impact explorer*.